

ARG54816 anti-ATG3 antibody [1377CT239.6.1.12]

Package: 100 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes ATG3
Tested Reactivity	Hu, Ms
Tested Application	IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	1377CT239.6.1.12
Isotype	IgG1, kappa
Target Name	ATG3
Species	Human
Immunogen	Recombinant protein of Human ATG3.
Conjugation	Un-conjugated
Alternate Names	Ubiquitin-like-conjugating enzyme ATG3; EC 6.3.2.-; APG3-LIKE; Protein PC3-96; APG3; Autophagy-related protein 3; PC3-96; APG3L; hApg3; APG3-like

Application Instructions

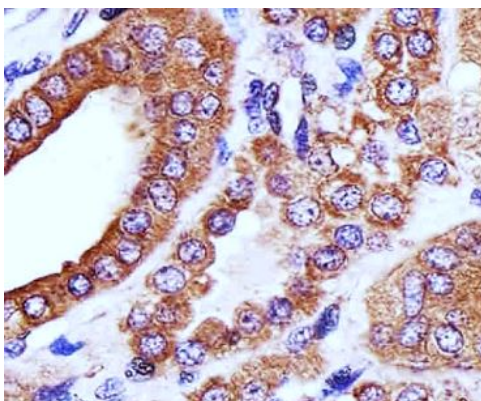
Application table	Application	Dilution
	IHC-P	Assay-dependent
	WB	Assay-dependent
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Mouse liver	

Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% (W/V) Sodium azide
Preservative	0.09% (W/V) Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

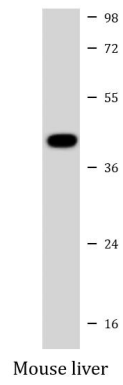
Database links	GeneID: 64422 Human GeneID: 67841 Mouse Swiss-port # Q9CPX6 Mouse Swiss-port # Q9NT62 Human
Gene Symbol	ATG3
Gene Full Name	autophagy related 3
Background	This gene encodes a ubiquitin-like-conjugating enzyme and is a component of ubiquitination-like systems involved in autophagy, the process of degradation, turnover and recycling of cytoplasmic constituents in eukaryotic cells. This protein is known to play a role in regulation of autophagy during cell death. A pseudogene of this gene is located on chromosome 20. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2013]
Function	E2 conjugating enzyme required for the cytoplasm to vacuole transport (Cvt), autophagy, and mitochondrial homeostasis. Responsible for the E2-like covalent binding of phosphatidylethanolamine to the C-terminal Gly of ATG8-like proteins (GABARAP, GABARAPL1, GABARAPL2 or MAP1LC3A). The ATG12-ATG5 conjugate plays a role of an E3 and promotes the transfer of ATG8-like proteins from ATG3 to phosphatidylethanolamine (PE). This step is required for the membrane association of ATG8-like proteins. The formation of the ATG8-phosphatidylethanolamine conjugates is essential for autophagy and for the cytoplasm to vacuole transport (Cvt). Preferred substrate is MAP1LC3A. Also acts as an autocatalytic E2-like enzyme, catalyzing the conjugation of ATG12 to itself, ATG12 conjugation to ATG3 playing a role in mitochondrial homeostasis but not in autophagy. ATG7 (E1-like enzyme) facilitates this reaction by forming an E1-E2 complex with ATG3. Promotes primary ciliogenesis by removing OFD1 from centriolar satellites via the autophagic pathway. [UniProt]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Cell Death antibody; Metabolism antibody; Neuroscience antibody
Calculated Mw	36 kDa
PTM	<p>Conjugated to ATG12 at Lys-243. ATG12-conjugation plays a role in regulation of mitochondrial homeostasis and cell death, while it is not involved in PE-conjugation to ATG8-like proteins and autophagy.</p> <p>Cleaved by CASP8 upon death ligand binding such as tumor necrosis factor-alpha. CASP8 cleavage blocks survival-related autophagy and favors apoptosis.</p>
Cellular Localization	Cytoplasm.

Images



ARG54816 anti-ATG3 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human kidney section stained with ARG54816 anti-ATG3 antibody at 1:25 dilution.



ARG54816 anti-ATG3 antibody WB image

Western blot: 20 µg of Mouse liver lysate stained with ARG54816 anti-ATG3 antibody at 1:1000 dilution.